

LIST OF DIURNAL LEPIDOPTERA ABOUT BAL-
HANNAH, CO. ADELAIDE,
WITH DESCRIPTIONS OF NEW OR LITTLE-KNOWN SPECIES.

By E. GUEST, Local Correspondent.

[Read May 2, 1882.]

Considering the acknowledged paucity of South Australian Papilionidæ, this locality must be reckoned a fairly good one for this family, as I have collected fifteen species in three years. These and two species known to exist, but not in my cabinet, make a total of seventeen species for this very limited area of about three miles radius. A species of *Synemon* occurs, but I do not consider it a butterfly.

1.—*Pieris Aganippe*.

This is not very common, especially the male. I believe it is generally considered double-brooded, but in this locality at any rate I am almost sure this is not the case. The eggs are laid in the spring, and the imago emerges early in autumn, which is the only time when I have ever seen the male. The female passes the winter in some secure spot, and is seen commonly in early spring, but they pair in the autumn, and the male seldom or never survives.

2.—*Terias smilax*.

Common some years in October; entirely absent in others. It is sometimes—but I think abnormally—double-brooded, as I have more than once seen single specimens in March.

3.—*Pyrameis itea*.

Not uncommon most years in October, but I am uncertain whether there is one brood or two. It flies in the autumn, and some at least of the females pass the winter in hollow trees, &c., where I have found them in August.

4.—*Pyrameis cardui*.

Very abundant. The same remarks apply to this species as to *P. itea*.

5.—*Juno velleda*.

Very abundant. Flies all the year round except in depth of winter, when it hides away like the two preceding insects. I

think, however, there is no doubt of there being two broods of this species per annum.

6. { *Lasiomata atlanta*.
 { *Xenica Klugii*.

This insect is very common, but here, at any rate, there is certainly only one brood, and I have never seen a single specimen in the autumn. The two sexes are almost exactly alike.

7. { *Lasiomata merope*.
 { *Heteronympha merope*.

The sexes vary so much as to appear at first sight to belong to entirely distinct species. It is as common as *L. atlanta*. The males appear about ten days before the females, and are almost exactly like *P. atlanta*, though nearly double the size.

8.—*Lasiomata ocrea*, *spec. nov.*

This insect appears to be undescribed, and is so named in allusion to a very peculiar marking, like a Hessian boot, on the underside of the wing. It is very rare; I have taken only one specimen, which is, I believe, a female, but Dr. Gaze had, however, previously captured two specimens.

The following is a short description:—

Expanse of wing, two inches. General colour of all the wings, yellowish cinnamon. The apical half of the fore-wing is crossed obliquely by four interrupted black bars, in the centre of each of which is a round black spot with a white eye. The hind wing has a dull round black spot on the costa, and a white one near the centre of the wing, surrounded by a very narrow black line. The underside of the fore-wings is a reproduction of the upper side. The ground colour of the hind wings is nearly white, and there are two jet-black spots with white centres; there are also several dull, blackish-brown smears, and about the centre the large and curious boot-like mark mentioned above. The antennæ are rather short and excessively fine. Body very short.

I now come to the *Lycanidæ*, of which I have six species included in the genera *Lycæna* and *Cupido*. Unfortunately, however, the descriptions in Mr. Tepper's paper, *Trans. Roy. Soc., S.A., Vol. iv.*, are so short (where, in fact, they are described at all), and the plates illustrating only the top side of the wing, that I cannot with certainty identify all my species.

9.—*Cupido Bœtica*.

It is very common, flies very fast, and is double-brooded. But is it correctly named?

10.—*C. agricola*.

This insect I believe I have also, but it is not common here.

11.—*C. adamapuncta*.

This is another insect that I think I can recognise, but Mr. Tepper appears to have only the female. The male is exactly the same size, but of a beautiful rich plum colour.

I once found both sexes of this swarming in extraordinary numbers round the white flowers of a shrub called here the box tree. This was in January; but I have on two or three occasions taken the female sitting half asleep on grass-stems in May. It evidently hibernates, and is seen in a tattered state in October.

The other species of this family in my collection I cannot at all identify from either the plates or diagnoses of Mr. Tepper. I have, I think, two species of *Lycæna*, and one of *Cupido*, that do not agree with any of his.

12.—*Cupido molybdæna*, *spec. nov.*

It bears a distant resemblance to *C. fasciola*, Tepper, but the markings do not agree, and the male, though smaller, is much lighter coloured than the female; the superior surface of the wings of the female being of a very dark burnt amber brown, with a white fringe interrupted with dark brown spots. The under sides of the wings agree pretty fairly with those of *C. fasciola*.

13.—*Lycæna pervulgatus*, *spec. nov.*

Strange to say, this is the very commonest insect we have. There are at least *three* broods of it, and it may be taken all the year round, even in the depth of winter if the sun should shine out warm for two or three days together. It approaches nearest to *Cupido delicatus*, Tepper, but there is no sign of the appendage or black spot in either sex, otherwise in size and colour it agrees pretty well. I possess also what I suppose to be a dwarf summer brood of this, for I can see no specific difference, that is only three-fourths of an inch across the wing.

14.—*L. paradoxa*, *spec. nov.*

This is a very singular insect, but unfortunately very rare; size, $1\frac{1}{4}$ inch. Both sexes nearly alike. Colour, rich bronze, shot with plum colour; this last rather more *prononcée* in the male. There are no spots or markings of any kind, excepting that the wing rays are yellowish brown. Fringe, bluish white. Underneath, the entire surface of both wings is shiny white, with the least possible tinge of blue, without markings of any kind, excepting a row of very minute jet black specks along and close to the outer margin of both wings. Body and thorax coloured both above and below, the same as the wings.

15.—*Hesperilla fumosa*, *spec. nov.*

It approaches nearest to *H. gracilis*, Tepper, but can be distinguished at a glance at the underside, the lower wing having a broad, chalky, white band across the centre; with one white spot above it and no other markings. It is not uncommon; is double brooded, and appears to be particularly fond of the flowers of the *stinkwort*, almost the only insect I know of that is.

16.—*Synemon læta*.

This is pretty common most years, but local. Its short rapid flight and mode of settling with its hind wings hidden by the top ones, put me in mind of a *Noctua* rather than a butterfly, in spite of the clubbed antennæ.

ON THE PROPAGATION OF CYMODOCEA ANTARCTICA.

BY PROF. P. ASCHERSON, Berlin.

Translated and communicated by J. G. O. TEPPER, F.L.S.,
Corr. Memb.

[Read June 13, 1882.]

When residing at Ardrossan, on the eastern coast of Yorke's Peninsula, Baron F. von Mueller, K.C.M.G., &c., the illustrious Government Botanist of Victoria, requested me to pay special attention to the above plant in order to obtain flowering and fruiting specimens. This was done accordingly, as far as my other duties permitted, and the observations made were recorded in two short papers published in Vol. IV. of the Transactions of this Society. The separate prints were subsequently forwarded with a number of specimens to Dr. P. Ascherson, Professor of Botany in the Berlin University, who did me the honour to reply by a lengthy letter, expounding his views in the matter under consideration. As this is of general interest in regard to botany, I beg to place a translation of this communication before the Royal Society, as far as relating to the subject. It will be seen that, though my observed facts were correct, the explanation (through insufficiency of the means of critical examination) was not so. (J. G. O. T.)